(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 1 September 2005 (01.09.2005)

PCT

(10) International Publication Number WO 2005/080556 A2

(51) International Patent Classification⁷:

C12N 7/00

(21) International Application Number:

PCT/EP2005/050739

(22) International Filing Date: 21 February 2005 (21.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(**30**) **Priority Data:** PCT/EP04/050190

23 February 2004 (23.02.2004) EP

- (71) Applicant (for all designated States except US): CRU-CELL HOLLAND B.V. [NL/NL]; Archimedesweg 4, NL-2333 CN Leiden (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WEGGEMAN, Miranda [NL/NL]; Grote Beer 10, NL-2665 WL Bleiswijk (NL). VAN CORVEN, Emile Joannes Josephus Maria [NL/NL]; Frederik Hendrikstraat 130, NL-3583 VS Utrecht (NL).
- (74) Agents: KLEIN, Bart et al.; Crucell Holland B.V., c/o Archimedesweg 4, NL-2333 CN Leiden (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- of inventorship (Rule 4.17(iv)) for US only

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VIRUS PURIFICATION METHODS

(57) Abstract: The invention provides a method for the purification of a virus from a host cell, said method comprising the steps of: a) culturing host cells, b) infecting said host cells with a virus, c) treating the cell culture with nuclease, d) lysing said host cells to provide a lysate comprising the virus. The virus is preferably a recombinant adenovirus. The invention further provides a method for the purification of a recombinant virus expressing a heterologous protein that is capable of binding nucleic acid, comprising the steps of: a) culturing host cells, b) infecting said host cells with said recombinant virus, c) lysing said host cells to provide a lysate comprising said recombinant virus, d) subjecting the recombinant virus to anion exchange chromatography and size exclusion chromatography, characterized in that the virus containing mixture is buffer exchanged at least once with a solution comprising at least 2 M NaCl, or another salt providing an equivalent ionic strength.



3080/